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OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

September 17, 2012

Keith Lannom
Forest Supervisor
Payette National Forest
800 West Lakeside Avenue
McCall, Idaho 83638

Re: U.S. Environmental Protection Agency (EPA) Comments for the Golden Hand No. 1 and No. 2 Lode Mining Claims Project Draft Environmental Impact Statement.
EPA Project Number: 08-062-AFS.

Dear Mr. Lannom:

The EPA has reviewed the draft Environmental Impact Statement (DEIS) for the Golden Hand No. 1 and No. 2 mining claims. Our review of the DEIS was conducted in accordance with our responsibilities under National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Under our Section 309 authority, our review of the DEIS considers the expected environmental impacts, and the adequacy of the EIS in meeting procedural and public disclosure requirements of NEPA.

The DEIS will inform the decision how to provide the proponent (AIMMCO) access to Golden Hand No. 1 and No. 2 claims, providing the opportunity to prove claim validity per a 2002 US District Court order. These claims lie within the Frank Church River of No Return Wilderness Area (FC-RONR) on the Payette National Forest. The DEIS provides a thorough history of the Golden Hand mine area (claim No's. 1-8) including the legal context for mining claims associated with Wilderness Areas. We appreciate the conversation with Forest Service staff to better understand the project background and potential impacts from the proposal.

The DEIS analyzes two action alternatives to explore mineral material: Alternative B - the proposed action and Alternative C - the agency preferred alternative developed to reduce motorized trips and prevent fuel storage in the Wilderness Area. The EPA has assigned a rating of EC-2 (Environmental Concerns- Insufficient Information) to the preferred alternative based on potential impacts to ESA listed fish species, potential impacts to water quality from road maintenance/construction, and potential impacts to Wilderness characteristics. We also believe that the DEIS lacks sufficient information regarding water quality monitoring and financial assurance.

Watershed Conditions/ ESA Listed Fish

The ESA listed species present in the analysis area include Chinook salmon, steelhead, and anadromous/resident bull trout. In addition, westslope cutthroat trout, a Payette National Forest sensitive fish species, live in a portion of the project area. The analysis in the DEIS used watershed indicators to assess impacts to fish, including modeled interstitial sediment, changes to peak/base flow, and chemical contamination. Waters in the analysis area are protected for cold-water aquatic life. There are no water

quality impaired water bodies on the 303(d) list in project area. However, sediment loading is a primary water quality concern in the watershed. The design criteria for both action alternatives along with BMPS would result in decreased sediment loading from 6,120 lbs to 180 lbs in the FC-RONR and from 40.4 lbs to 0.7 lbs outside the Wilderness Area over the long term. The diversion from Coin Creek, a tributary of Beaver Creek, would not result in an adverse impact to peak/base flow of the Beaver Creek drainage. The DEIS states that chemical transport would be managed under a spill prevention, control and countermeasure plan (SPCC) to be approved by the Forest Service. In addition, under the preferred alternative, fuel would not be stored in the FC-RONR. It is our understanding that Idaho Department of Environmental Quality (IDEQ) is the agency that reviews the SPCC. Please confirm that it is indeed the Forest Service that will review the SPCC in this case or revise the section to state that IDEQ will review and approve this document.

The EPA supports the required mitigation and design elements related to improving degraded roads and temporary road construction to access the project. We commend the Forest Service for promoting sediment load reduction to fish bearing streams and requiring reclamation of disturbed areas, which would result in long-term attainment and maintenance of desired watershed conditions. Another measure discussed in the DEIS associated with fish/watershed impacts is the number of motorized trips in the FC-RONR. Alternative B proposes 771 motorized trips while the preferred alternative reduces the allowed number to 571 trips. We support minimizing activities to reduce impacts to Wilderness characteristics as well as impacts to aquatic species. However, the DEIS does not explicitly discuss the significance of motorized trip numbers nor analyze the relationship between this measure and potential impacts to fish or watershed conditions. Although it can be inferred that fewer activities in the Wilderness Area would result in fewer impacts to Wilderness characteristics, it would be helpful to be explicit about how trip numbers directly or indirectly impact fish and how reducing the number of trips minimizes the impacts.

While the DEIS includes a discussion of temperature and water quality, there are areas that need clarification or additional information. Idaho Water Quality Standards state that water temperatures cannot be caused to exceed 10°C daily average during June, July, and August for juvenile bull trout rearing and 9°C daily average during September and October for bull trout spawning. The DEIS does not provide criteria for other cold water biota and therefore, it is unclear if this is the most relevant criteria to use as the basis for the analysis (e.g., the most restrictive criteria). Protection of Riparian Conservation Areas (RCAs) is vital in maintaining current and future sources of large woody material, intact riparian vegetation communities, and functional ecological processes of temperature regulation (water, air, and soil). The DEIS notes that protection of RCAs is often accomplished by delineating riparian area buffers, and restricting or prohibiting management activities, such as roads, within these areas. There are approximately 33 miles of road within RCAs in the analysis area. The DEIS states that overall, system road densities across the watersheds are low (0.3), but the combined densities of system and unauthorized roads in RCAs are of concern at 1.5 miles per square miles of RCA. The DEIS does not appear to include a corresponding assessment of road construction activities' impacts on water quality, specifically on temperature. The DEIS also does not discuss whether vegetation clearing or other activities in RCAs would result in increased stream temperature (e.g., reduction in riparian vegetation).

The EPA is concerned about potential impacts to ESA listed fish. We understand through our conversation with Forest Service staff that the Biological Assessment/Biological Evaluation (BA/BE) is not included in the EIS and that NOAA and NMFS have not yet completed their Biological Opinions. Therefore, at this time, we do not know if the alternatives include sufficient measures to be protective of

ESA listed fish. The DEIS states that the maximum proposed operating season is from July through October. We believe the DEIS should discuss the limiting factors of this operating season and the potential to restrict operations during critical times of the year to protect water quality (e.g., during spring run-off).

The EPA Recommends that:

- *The final EIS discuss potential impacts to fish from motorized trips and how the preferred alternative reduces these impacts.*
- *The final EIS include information on activities in RCAs and potential impacts to water quality, particularly on temperature.*
- *The final EIS include the findings from BA/BE and any terms and conditions imposed by the Services.*
- *The final EIS should provide additional detail on the operating season and whether or not controls or restrictions could be imposed to further protect water quality.*

Water Quality Baseline

Information regarding baseline water quality appears to be limited in the DEIS. The data presented in the document are from single samples collected at two locations during one year (2002). It is unclear if this is the extent of water quality data that exists for this area. If this is the case, the DEIS should disclose the limited availability of data. The DEIS states that all elements (except lead) were below the detection limits. However, the DEIS did not discuss detection limits or instruments used in the analysis, so it is challenging to develop conclusions about these parameters. For example, it would be useful to know if detection limits were lower than chronic exposure criteria. It would also be useful to include a citation for the source of this data for readers who may be interested in more detail about the 2002 samples.

The EPA recommends that that final EIS include additional information regarding data points, detection limits, and provide a reference to the sample data used in the analysis.

Water Quality Monitoring

The DEIS would be strengthened by providing additional information regarding the water quality monitoring plan and its relationship to the project. The DEIS includes plans for monitoring peak/base flow. For example the diversion rate would be monitored on Coin Creek to ensure that the flow is not reduced by more than 10 percent (rate would be reduced if drops below 0.4 cfs). Monitoring of peak/base flow appears to be the only specific parameter discussed in the DEIS. The DEIS generally states the Forest Service applies Best Management Practices (BMPs) to achieve Idaho Water Quality Standards. It further states that the site-specific application of BMPs, with a monitoring and feedback mechanism, is the approved strategy for controlling nonpoint source pollution. Appendix C includes a one page outline of water quality monitoring, but does not include specific details on parameters, frequency, or type of monitoring. The objective of the monitoring plan stated in the appendix is to determine if BMPs are being implemented. However, the DEIS does not provide a description of the BMPs and monitoring/feedback mechanisms referenced above and on Page 3-22.

The DEIS and the Appendix do not provide sufficient detail to evaluate whether or not monitoring would be effective in answering potential questions and concerns (e.g., determine if site-specific BMPs are being implemented.) Furthermore, it would seem that relevant objectives in the monitoring plan would be progress toward meeting or maintaining water quality standards and watershed desired

conditions. The EPA recommends the seven step data quality objectives (DQO) process[1] as an effective tool to establish questions of concern (objectives), determine parameters for data collection, and track results. This process provides a standard working tool for project managers and planners to develop DQO for determining the type, quantity, and quality of data needed to reach defensible decisions or make credible estimates. Although the DQO process may be more directly applicable to study plans for establishing baseline conditions, it can also be used to develop objectives of studies more broadly to determine where data collection is warranted.

The EPA recommends that the final EIS provide details on the monitoring plan. This should include objectives, parameters, frequency, authority, and how monitoring results would be used to inform decisions. Furthermore, the final EIS should include an adaptive management plan so that contingencies are in place to respond to unanticipated conditions.

Geochemistry and Water Quality

The project calls for widening a section of FR-373 by cutting into the slope, improvements to the unauthorized road/trails within the FC-RONR Wilderness, as well as construction of temporary roads used to access the drill sites. It is not uncommon for road cuts at mine projects to cause acid rock drainage if these activities result in the exposure of sulfide containing minerals. Given the occurrence of several sulfur containing minerals at the site (p 3-9), the potential for oxidation of these materials during site access/exploration should be addressed. If this would not be an issue, the document could state this. Given the emphasis on "leave no trace" recreation within Wilderness Areas, even the potential for minor impacts from acid generation/metal leaching should be noted. On Page 2-17 it mentions that a Synthetic Precipitation Leaching Procedure (SPLP) test would be performed on construction material brought into the Wilderness. Similar tests may need to be performed in areas were road cuts and/or other activities might result in sulfide mineral oxidation. If there is a potential for acid generating material, the analysis should include measures to control these sources in order to protect natural resources from contamination.

The EPA recommends that the final EIS include information on the geochemical potential to expose acid generating material and include source control/treatment measures if there is a potential for contamination.

Financial Assurance

The DEIS states that under Forest Service Mining Regulations at 36 CFR 228 Subpart A, required reclamation bonds must be posted with the Forest Service prior to final approval of the plan of operation. However, the document does not commit to requiring bonding or include any details regarding the type or amount of financial assurance.

NEPA provides for the disclosure to the public and decision-makers all information concerning environmental consequences of a proposed action before the decisions are made and before actions are taken. NEPA does not directly refer to disclosure of financial assurances. However, a key component to determining the environmental impacts of a mine is the effectiveness of closure and reclamation activities, including long-term water management. The amount and viability of financial assurance are critical factors in determining the effectiveness of reclamation and closure activities and, therefore, the

[1] US EPA. 2006. Guidance on Systematic Planning Using the Data Quality Objectives Process. EPA QA/G-4. http://www.epa.gov/quality/qs-docs/g4-final.pdf

significance of the environmental impacts. The final EIS should include details about the bond mechanism and a range of costs so that there is a context for understanding the cost of ensuring that the mine is appropriately reclaimed and closed. We are available and willing to explore this issue with you more and we welcome any information you have related to the existing bond and proposed estimate.

The EPA recommends that the final EIS include a commitment to require financial assurance and details regarding, type of financial assurance (e.g., surety bond), cost range for reclamation activities, and schedule for release of the bond.

FC-RONR Wilderness Area

The DEIS does a great job of describing the idea of Wilderness and the importance of preserving these characteristics in Wilderness Areas. However, it may be important to briefly contextualize the "rarity" of Wilderness Areas in the US a whole, and that the preservation of Wilderness is of national interest. As mentioned previously the preferred alternative (Alternative C) reduces the number of motorized trips from Alternative B by 200 trips and would not allow fuel storage in the Wilderness Area. The EPA supports activities that reduce potential impacts to the Wilderness Area and promote preservation of intrinsic Wilderness qualities.

Reclamation of the Wilderness includes seeding the area with native seed mixture. While it is critical that native plants be used, there should also be consideration of using seeds sourced from local areas to ensure consistent genetic diversity that may be found locally. This has been employed in several re-vegetation projects that have occurred within Wilderness Areas (e.g. this has been the practice of the Wilderness Resources Office at Olympic National Park, WA).

In general, Wilderness re-vegetation projects can have low plant survival rates and/or low rates of natural re-colonization, especially in high elevation areas with short growing seasons. Therefore, even though there are plans to restore the area after drill pads, roads, pits, etc are no longer needed, there should be some indication of the time period that is expected to elapse before these areas would return to a natural state (one where the impacts would no longer be apparent). In order to provide a basis for the assumption of success rate it may be relevant to reference other successful re-vegetation projects in the general area.

The EPA recommends that the final EIS:

- *Discuss the potential for using local plant sources for reclamation in the Wilderness Area.*
- *Provide additional information regarding the time frame and potential for re-vegetation to be successful.*

Thank you for this opportunity to comment on the DEIS. If you have any questions or concerns please contact me at (206) 553-1601 or by electronic mail at reichgott.christine@epa.gov, or you may contact Lynne McWhorter of my staff at (208) 378-5757 or by electronic mail at mcwhorter.lynne@epa.gov.

Sincerely,

Christine B. Reichgott

Christine B. Reichgott, Unit Manager
Environmental Review and Sediment Management Unit

Enclosures:
EPA Rating System for Draft Environmental Impact Statements

EPA Specific Comments on the Golden Hand No. 1 and No. 2 DEIS

Alternative C, the agency preferred alternative, includes restrictions to reduce potential impacts to the Wilderness Area. The document states throughout that this alternative would not allow storage at the Penn Ida Plaza. The DEIS does not include information on what the Penn Ida Plaza consists of or what the significance of this area is. On Page 3-93 it briefly mentions that having storage at the Penn Ida Plaza would affect one of the visual quality objectives. We recommend that the final EIS provide a description of the Penn Ida Plaza and discuss the relevance of this area/resource in the impact analysis.

The proposal includes opening an existing Ella Mine adit. However, a description of existing conditions or activities associated with opening this adit is not included in the analysis. Historic adits can be a health and safety hazard to workers and wildlife if they are unstable or have poor air quality. Furthermore, any water seeping from the adit may be contaminated from oxidized minerals, which can impact surface or groundwater resources. We recommend that the final EIS provide details about the existing conditions (e.g., is water present and if so, develop a plan of study or disclose existing data) at the adit and describe the proposed activities needed to access this area.

We recommend that the final EIS include a section on abbreviations. For example, in Appendix C, Water Quality Monitoring, there is an abbreviation PDF associated with BMPs. The document does not appear to define the abbreviation PDF.

Page S-1: It mentions that the FC-RONR lies within the Golden Hand Project area. We suggest changing the language to state that the Gold Hand Project lies within the FC-RONR instead of the former. This also occurs elsewhere in the document (e.g., Page 1-2).

Page 1-5, Figure 1-2: From this map, the color scheme implies that the proposed road leading to the mine claim lies outside of the Wilderness Area. It appears that the Wilderness boundary is drawn around the trail (as is not uncommon for Wilderness boundaries to take such deviations around existing roads, etc). After further reading of the document and other figures, it becomes apparent that the Wilderness boundary is at the Pueblo Summit. We recommend that the final EIS clarify this on the map.

Page 1-11: The DEIS states that additional information on BMPs is provided in Chapter 2 and the Watershed/Soils section, Chapter 3. The DEIS does not include a section titled watershed/soil and there does not appear to be details of BMPs in the Fishery/Watershed Resource section or the Soil Resources section. We recommend including a summary of BMPs and revising the reference as needed.

Page 3-13: On average an estimated 15 groups per year enter the Wilderness via the Pueblo Summit Trailhead. As mentioned, this is based on an average from 1982 to 2011. Data from other Wilderness Areas have shown very large increases in Wilderness use in more recent years (often starting in the mid-1990s). Is this also the case with access associated with this trailhead or does present use remain fairly limited? Also, is this the same scenario for the Big Creek/Smith Creek trailhead? Furthermore, on Page 3-18, it mentions that "Currently, an estimated 15 groups of recreationists enter the FC-RONR Wilderness annually ...", but earlier it states that this value of 15 groups is a 30 year average. Are current use and the 30 year average considered the same? Please confirm the current and future uses for the FC-RONR Wilderness Area.

Pg 3-35: The DEIS states that there are nine stream fords in the project area. However, the DEIS focusses on the four fords at Coin Creek and North Fork of Smith Creek. Furthermore, Figure 3-6 only identifies two fords and the open bottom stream structure installation- an enhanced ford. The final EIS should further discuss the additional fords and how they would impact water quality and aquatic species.

Pages 3-24 and 3-25, Figures 3-5 and 3-5b: These figures illustrate the ESA listed species, sensitive, MIS fish distribution, and designated critical habitat in Golden Hand vicinity. It is not clear what the difference is between these two figures other than the way the data is displayed. Are the figures meant to demonstrate different information? Also, it would be helpful if the stream fords and drill sites were superimposed on one of these maps so that the reader could have a visual representation of potential impacts to fish from stream fords and operations.

Page 3-39: The parenthetical reference reads "Error! Reference source not found." Recommend including the correct reference.

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements Definitions and Follow-Up Action*

Environmental Impact of the Action

LO – Lack of Objections

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 – Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.